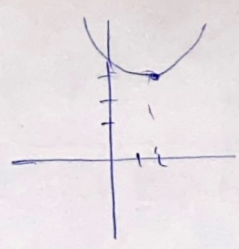


فائل پانچویں درجے کی

هرمس صا د جی

سوال

الف) $y = x^2 - 5x + 7$



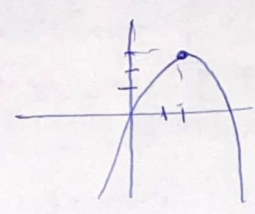
$$q_{min} = \frac{b}{r_a} = 7$$

$$y_{\min} = 10$$

$$\vdots) = g^T + f_{n-1}$$

$$x_{\max} = \frac{-b}{2a} = 1$$

$$y_{\max} = r$$



$$g = r_0 r^k + (m+1)/r + \frac{1}{r} m + r = 0$$

(۲ سوال)

2) $\Delta > 0$ $(m+1)^2 - 4 \times \frac{1}{r} \times (m+r) = m^2 + 1 + 2m - 4m - 4 = m^2 - 2m - 3 > 0$
 $(m-3)(m+1) > 0$

$$(m - \sigma)(m + \tau) > 0$$

$$m \in (-\infty, -r) \cup (a_9 + \infty)$$

$\rightarrow \Delta = 0$

2) $\Delta \tau_0 \rightarrow m_e = (-\tau, a)$

$\Rightarrow \Delta \geq a \longrightarrow m = [-r, a]$

$$g = (m-r)u^r - r(m+1)u + 1$$

$$S \leq 0 \rightarrow \frac{r_{m+y}}{m-t} r_n = \frac{-1}{1-t} \rightarrow m = (-1)(r) \quad (r \text{ دالہ})$$

$$\rho > 0 \rightarrow \frac{1}{m-r} - \frac{r}{1-t} \rightarrow m = (r_2 + \infty)$$

$$\Delta > 0 \rightarrow (r_m - r)^2 - (m - r)x_{10} = e_m^2 + f_m - f_{0m} z_{10} =$$

$$f_m^* - \gamma \Gamma_m + \lambda F \geq 0$$

$$m^T - \lambda m + \tau I \succ 0$$

$\Delta < 0$

لغز اوله ۱۴ $\Delta \geq 0 \rightarrow |\beta| > |\alpha|$ (ب)

$$P_{50} \rightarrow \frac{l_0}{m-T} \rightarrow m_{57} \quad (1)$$

$$s < 0 \quad \xrightarrow{m = (-1, \tau)} \textcircled{9} \quad \xrightarrow{2} \quad m = (-1, \tau)$$

$$g = (m-r)q^r - r(m+1)n + 19$$

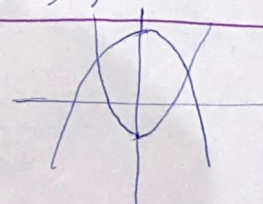
$$\Delta \geq 2 \quad p \geq 0$$

$$(-r m_r)^T - f(m_r) \chi_0 = f_m^T + f + \lambda m_{-fom} + \lambda \rightarrow m_{-\lambda m_r \chi_1}^T > 0$$

$$\frac{1a}{m-x} \quad \sqrt{a}$$

$$\frac{2}{-1+}$$

$m \leq r$



مسو (۴۰)

سوال ۹

$$\frac{-b}{2a} = \frac{r_{m+1}}{r_m - 1} = \frac{m+1}{m-1} = -1 \rightarrow -r_m + 1 = m+1 = r_m = 2 \rightarrow m = 1$$

$$g = \frac{r}{2} n^2 - (r \sin \alpha) n + \frac{r}{2} = 0$$

سوال ۵

$$\Delta \geq 0 \quad r \sin^2 \alpha - r \times \frac{r}{2} \times \frac{r}{r} \rightarrow r \sin^2 \alpha - r \geq 0 \rightarrow r \sin^2 \alpha \geq r$$

$$\sin^2 \alpha = 1 \rightarrow \sin \alpha = \pm 1 \quad \begin{cases} \sin = 1 \rightarrow \frac{r}{2} n^2 - r n + \frac{r}{2} = 0 \\ \Delta = r^2 - r = 0 \rightarrow n = \frac{r \pm \sqrt{0}}{r} = \frac{r}{r} = 1 \\ \sin = -1 \rightarrow \frac{r}{2} n^2 + r n + \frac{r}{2} = 0 \rightarrow \Delta = r^2 - r = 0 \rightarrow n = \frac{-r \pm \sqrt{0}}{r} = \frac{-r}{r} = -1 \end{cases}$$

$$\frac{(m+1)(r_{m-1}) - (r_{m-1})(r_{m+1})}{(r_m^2 - r_{m-1})(r_m^2 - r_{m+1})} = \frac{(m+1)(r_{m-1}) - (r_{m-1})(r_{m+1})}{(1-r_m^2)(r_{m+1})} = r_{m+1} + r_{m-1}$$

$$\frac{-6r + 4ac}{4a} = \frac{-144 - 16}{-16} = \frac{160}{-16} = -10$$

$$m n^2 - (m+1)n - r = 0 \quad r(\alpha + \beta) = \Delta(\rho \alpha) + V$$

$$\downarrow \quad \frac{m+1}{n} \quad \frac{-r}{m} \rightarrow \frac{-10}{m} + V = \frac{-10 + 16m}{m}$$

$$\frac{r_{m+1}}{m} = \frac{-10 + 16m}{m} \rightarrow r_{m+1} = -10 + 16m - r \quad r_{m+1} = 16 \rightarrow m = 1$$

$$\alpha^r + \beta^r = S^r - r\rho = \left(\frac{r}{2}\right)^r - r\left(-\frac{1}{r}\right) = \frac{q}{r} + 1 = \frac{16}{r}$$

$$n^2 - 5n + 2 = 0 \quad \frac{4a \pm \sqrt{b^2 - 4ac}}{2a}$$

۱۸

$$S = \alpha + \beta = \alpha = \alpha - \beta \quad \beta^2 - 5\beta + 2 = 0 \quad \beta^2 = 5\beta - 2 \quad \alpha\beta^2 = 2\alpha\beta - 10$$

$$\beta^2 = (5\beta - 2)^2 \rightarrow \beta^2 = 25\beta^2 + 4 - 20\beta \rightarrow 12\alpha\beta - 20 + 4 - 20\beta$$

$$\beta^2 = 10\alpha\beta - 4 \times \beta \rightarrow \beta^2 = 10\alpha\beta - 4\beta = 2\alpha\beta - 10 - 4\beta = 4\alpha\beta - 20 = \beta^2$$

$$\frac{4(5\beta - 2) + 4\alpha\beta - 20}{2(5\beta - 2)} = \frac{40 - 8\beta + 4\alpha\beta - 20}{2(5\beta - 2)} = \frac{4\alpha\beta - 20}{2(5\beta - 2)} = \frac{4(5\beta - 2)}{2(5\beta - 2)} = 2$$

$$\Delta \geq 0 \quad f \sin^2 \alpha - f \times \frac{r}{r} \times \frac{r}{r} \rightarrow f \sin^2 \alpha - f \geq 0 \rightarrow f \sin^2 \alpha \geq f$$

$$\sin^2 \alpha \geq 1 \rightarrow \sin \alpha = \pm 1$$

$$\begin{aligned} \sin \alpha = 1 &\rightarrow \sin \alpha = \pm 1 \\ \sin \alpha = -1 &\rightarrow \sin \alpha = \pm 1 \end{aligned}$$

$$\Delta = f^2 - f = 0 \rightarrow m = \frac{r+\sqrt{r^2-f}}{f} = \boxed{\frac{r}{f}}$$

$$\Delta = f^2 - f = 0 \rightarrow m = \frac{r+\sqrt{r^2-f}}{f} = \boxed{\frac{r}{f}}$$

$$g = ar^2 + br + c$$

$$fa + 2b + c = 1f$$

$$fa - 2b + c = f$$

$$g_r = 2r + 10$$

$$a = 2 \rightarrow g = 1f$$

$$a = -2 \rightarrow g = f$$

$$\frac{-b}{2a} = -\frac{r}{2}$$

سوال ۹

$$\begin{cases} a+b=5 \\ 2a-b=0 \end{cases}$$

$$3a=5 \rightarrow a=1, b=4$$

$$g = 2r^2 + (m+1)r + m + 4$$

$$\Delta = 0$$

$$g = a \rightarrow a = 2r^2 + (m+1)r + m + 4 \rightarrow 2r^2 + mr + m + 4 = 0$$

$$m^2 - f \times (m+4) = m^2 - 1m - 4 = 0 \rightarrow (m-1)(m+4) = 0$$

$$m = 1, -4$$

سوال ۱۰

$$\frac{x \cdot 0}{\Delta \beta^2} = 20$$

$$3 = f \vee \beta - 21$$

$$\frac{\beta - 11}{3 - 10} = \frac{12(21)}{20}$$